AMENDMENT AND RESPONSE UNDER 37 CFR § 1.116 – EXPEDITED PROCEDURE   Page 8
Serial Number: 09/772,256   Dkt: 1565.036US1
Filing Date: January 29, 2001
Title: SECURITY CONTEXT SHARING

REMARKS

This responds to the Office Action mailed on July 12, 2005.

Claims 1-33 and 35-37 are presently pending in this application.

§101 Rejection of the Claims

Claim 34 was rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter. The Examiner asserts that claim 34 is non statutory because it is directed towards a signal which is non tangible.

Firstly, Applicant disagrees with this generic statement levied in support of this rejection because the signal is very clearly stated in claim 34 as being embodied in a tangible medium, namely a computer. *Emphasis added.*

Secondly, the fact that the signal was embodied in a computer existed prior to the First Office Action, and the Examiner did not levy a §101 rejection with the first rejection against claim 34. Thus, this is a new rejection and new grounds for rejection that should have been raised when it existed in the First Action and it was not. Therefore, the present rejection is premature for a Final and is not proper pursuant to MPEP 706.07(c). The Applicant respectfully requests that the finality of this action be withdrawn and a new action issued; if the Examiner continues to assert this particular rejection of claim 34, since the issue, at least being articulated by the Examiner in this Final Office Action, existed prior to the First Office Action and it was not raised then by the Examiner in that First Office Action. It is not proper to raise a new issue or new rejection in a Final Action that existed prior to the First Action and was not raised in that First Action. Accordingly, Applicant respectfully request the Finality of the Action be withdrawn or that the rejection of claim 34 be withdrawn.

Thirdly, the Examiner's attention is directed to MPEP 2106(c) (2), where it is stated that for "for purposes of a 35 U.S.C. 101, analysis, it is of little relevance whether the claims is directed to a machine or a process. *Emphasis added.* The legal principles are the same. A*T&T Corp. v. Excel Communications, Inc.* Again, Applicant would like to direct the Examiner's attention to MPEP 2106(a), the second full paragraph where it is stated: "a claimed computer-readable medium encoded with a computer program *is a computer element* which defines

structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, *and is thus statutory.*" *Emphasis Added.* This section of the MPEP defines a computer element as structure and a computer-readable medium is a computer element. Applicant notes that claim 34 includes a signal embodied within a computer; a computer is tangible per se according to case law and the MPEP.

Therefore, Applicant does not understand the present rejection being asserted under 101 with respect to claim 34. If there is a specific court decided opinion or if the MPEP has been revised beyond the eighth edition with changes in this area, then Applicant respectfully requests that the Examiner provide some foundation or basis for the assertions being made by the Examiner that physical structure beyond a computer is a requirement because Applicant does not believe this is a proper statement of the law.

Furthermore, the structure (computer) in Applicant's preamble of claim 34 is sufficient to provide structure for the claim bodies. Once again, the Examiner's attention is directed to MPEP 2111.02 "Effect of Preamble." Here it is stated: "any terminology in the preamble that limits the structure of the claimed invention <u>must be treated as a claim limitation.</u>" *Emphasis added.* *Corning Glass Works v. Sumitomo Elec. U.S.A., Inc.,* 868 F.2d 1252, 1257 (Fed. Cir. 1989). There is little doubt that claim 34 recites structure, namely a "computer" and that this structure limits the positively claimed language of the rejected claim 34 to a computer implemented embodiment. The entire MPEP section 2106 discusses permissible software inventions, which include data structures where only the preambles of the data structures provide any structure. Structure is provided by way of the computer, which the entire MPEP cites as permissible. Still further, the structure is sufficient if it resides solely in the preamble of the claim.

The test the Examiner must use with respect to § 101 is whether the claim as a whole produces a useful concrete and tangible result. It has long been established that software implementations including programs and codes embodied in a computer or computer media are inventions that are entitled to patent protection and thus are considered patentable subject matter. (*In re Alappat,* 33 F.3d 1526 (Fed. Cir. 1994) (*en banc*)). In fact, if a claimed invention as a whole produces a useful concrete and tangible result, then the invention is patentable. (*State Street Bank & Trust v. Signature Financial Group,* 149 F.3d 1368 (Fed. Cir. 1998). Thus, even

AMENDMENT AND RESPONSE UNDER 37 CFR § 1.116 – EXPEDITED PROCEDURE
Serial Number: 09/772,256
Filing Date: January 29, 2001
Title: SECURITY CONTEXT SHARING

Page 10
Dkt: 1565.036US1

business methods embodied in a computer media are properly classified as processes entitled to patent protection under § 101.

Accordingly and very clearly, the claim 34 is directed on its face toward patentable subject matter, since the claim is embodied in a computer (structure) and the claim is directed toward producing an entity identifier within the computer (concrete or tangible result). The structure of the computer is present in the preamble and acts as a limitation on the structure of the claim 34, pursuant to settled law.

Furthermore, the courts have with unanimity held that § 101 rejections are to have very limited scope and application, and that the phrase "new and useful process, machine, manufacture, or composition of matter" shall have a very broad and expansive meaning to reflect Congress's intent when enacting the patent laws. To enforce this interpretation the courts have held that the Examiner has the burden of establishing a prima facie case that the claimed invention as a whole is directed solely to an abstract idea or to manipulate abstract ideas that do not produce a useful result. Moreover, the Examiner must expressly state how the claim language is being used to support his/her § 101 rejection. Furthermore, only when a claim is devoid of any limitation to a practical application in the technological arts should it be rejected under § 101. (*In re Warmerdam*, 33 F.3d 1354 (Fed. Cir. 1994).

Applicant has demonstrated, even without amendments to the claim 34 that the language of the claim 34 is embodied in structure (computer) and does produce practical results (entity identifiers). As a further example, the Examiner's attention is directed to *AT&T Corp. v. Excel Communications, Inc.*, 172 F.3d 1352, 1358 (Fed. Cir. 1999) where the Court stated "transformation of data, representing discrete dollar amounts, by a machine through a series of mathematical calculations into a final share price, constitutes a practical application of a mathematical algorithm, formula, or calculation, because it produces a 'useful, concrete and tangible result'."

Thus, Applicant asserts that the Examiner has misapplied § 101 and misinterpreted the law with respect to the effect of a claim's preamble. The rejected claim is directed to useful and concrete results, which are processed and housed within a computer and this structure is clearly recited in the preamble, which is a positive and structural limitation of the overall body of claim 34. Accordingly, the rejection with respect to the claim 34 is not sustainable and should be

withdrawn. Furthermore, as stated above the rejection of claim 34 was not timely raised; and thus, by presenting it now in a Final Action, it is premature.

Additionally, if the Examiner continues to assert the 101 rejection then the Applicant respectfully requests a specific legal foundation or citation that supports the Examiner's stated rationale, which appears to be that a "computer" is not structure and that the structure has to reside in the body of the claim and not solely within the preamble. If this is a correct summary of the Examiner's rejection with respect to the rejected claims, then Applicant disagrees with this interpretation of the law because a computer is structure and because the structure is sufficiently placed in the preamble only.

Accordingly, Applicant respectfully requests that the rejection of claim 34 be withdrawn because it is premature and because it is an improper statement and application of the settled law. Applicant respectfully requests an indication of the same.

§102 Rejection of the Claims

Claim 34 was rejected under 35 U.S.C. § 102(e) for anticipation by Gressel (U.S. 6,311,272). It is of course fundamental that in order to sustain an anticipation rejection that each and every step or element in the rejected claim must be taught or suggested in the cited reference.

Gressel is directed toward authenticating communication between entities. The title of Gressel specifically mentions biometric techniques to achieve this authentication. The Examiner has cited Gressel column 15 lines 23 through 37 for the proposition that Gressel anticipates claim 34.

The reference at column 15 and lines 23 through 37 corresponds to FIG. 6A and specifically reference equation C1 of FIG. 6A. Here it can be clearly seen that there is no secret value encoded in the information produced by Gressel. That is, a public key by definition is not a secret value, since the name indicates it is in fact "public." A private key would be a secret key but not a public key. This makes sense in Gressel because the process recited by the Examiner is used for purposes of authentication not for purposes of establishing an identifier. Accordingly, public information is being used for the authentication process, namely the public key.

The components of Applicant's claim 34 recite a teaching of producing an entity identifier. That identifier includes an encoded version of an entity name, a secret value, and a

AMENDMENT AND RESPONSE UNDER 37 CFR § 1.116 – EXPEDITED PROCEDURE
Serial Number: 09/772,256
Filing Date: January 29, 2001
Title: SECURITY CONTEXT SHARING

Page 12
Dkt: 1565.036US1

random number, this is hashed to get a result, and the result is then concatenated to the random number to produce the entity identifier. When compared to Gressel at C1 in FIG. 6A it is seen that the value for a message used in authentication between a terminal and a smartcard is a random number having added a hash value that includes an ID a Public Key and a Random Challenge. *Emphasis added.*

A few significant distinctions are immediately noticeable from a comparison of Gressel to Applicant's claim 34, first Gressel lacks a secret value and in fact includes a non secret value, the public key. Therefore, in this regard Gressel teaches away from claim 34 by including public information. Second, there are two different random numbers in Gressel the random number and the random challenge, Applicant's claim 34 includes but one and same random number.

Thus, Applicant respectfully asserts that Gressel cannot be said to anticipate claim 34 and that this rejection should be withdrawn and that claim 34 should be allowed.

§103 Rejection of the Claims

Claims 1-5, 8, 13, 15-21, 25, 27-30 and 35 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Hoke et al. (U.S. 6,701,437) in view of Schneier (Applied Cryptography) and Shimbo et al. (U.S. 6,092,191). Any proposed combination of references must be compatible with the individual teachings of the references that comprise the proposed combination.

Shimbo is directed towards a packet authentication and encryption/decryption technique that is achieved by authentication at each intermediate node of a packet path through a gateway network and not just solely at a conventional source and destination node of the packet's path through a gateway network. In other words, in Shimbo a source node or originator of a packet encrypts and authenticates with not just the destination node by with each intermediate node as the packet traverses the network to the destination node. The encryption along the route is altered by the intermediate nodes, such that encryption between one set of intermediate nodes varies form the encryption used with a different set of intermediate nodes.

Hoke relies on VPN communications. In these communications, all participants (source and destination nodes only) within the VPN are using the same encryption, decryption, and authentication. They (source and destination nodes) are not using different encryption and do

not have to authenticate each packet traversing the VPN with intermediate nodes of the network (*e.g.*, often the Internet). In fact, the intermediate nodes of a VPN do not authenticate they simply pass the packet along to a next intermediate node in its original encrypted format.

Applicant respectfully asserts that the proposed combination that includes Holt and Shimbo is improper because the two do not compliment one another and are different network communications and different approaches. That is, the teachings in Holt are mutually exclusive of the teachings in Shimbo. Shimbo uses gateways to authenticate a packet at each node of the packet's path through a gateway network. Holt uses a VPN, where common encryption is passed to intermediate nodes that are unaware of the encryption and for that matter of the VPN. In fact, the VPN would not exist if each node knew the encryption and authentication techniques and could switch them, as is taught by Shimbo. This would defeat the very purpose of a VPN. Therefore, the teachings of Shimbo are not compatible and teach away from the teachings of Holt.

Therefore, the proposed combination is improper because it will not work in such a manner that preserves the individual teachings of the proposed references. In fact, the proposed combination would defeat the teachings of both Holt and Shimbo if made. Applicant respectfully asserts that the proposed combination could have only been made via improper hindsight and is therefore not permissible. Furthermore, one of ordinary skill in the art would have recognized that Holt is directed toward novel VPN communications and that Shimbo was directed toward gateway communications and would not have been motivated in the first instance to combine the two references.

Accordingly, the rejections with respect to the independent claims 1, 17, and 35 should be withdrawn and the claims allowed.

Claims 6, 9-12, 14, 22-24, 26, 31-33 and 36-37 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Hoke et al. in view of Schneier and Shimbo et al., as applied to claim 1 above, and further in view of Demers et al (U.S. 5,857,023). Claims 6, 9-12, and 14 are dependent from independent claim 1. Claims 22-24, 26, and 31-33 are dependent from independent claim 17. Claims 36 and 37 are dependent from independent claim 35. Therefore, for the remarks presented herein and above with respect to claims 1, 17, and 35, the rejections of

claims 6, 9-12, 14, 22-24, 26, 31-33, and 36-37 should be withdrawn and these claims allowed.

Applicant respectfully requests an indication of the same.

AMENDMENT AND RESPONSE UNDER 37 CFR § 1.116 – EXPEDITED PROCEDURE   **Page 15**
Serial Number: 09/772,256   Dkt: 1565.036US1
Filing Date: January 29, 2001
Title: SECURITY CONTEXT SHARING

CONCLUSION

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney (513) 942-0224 to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.
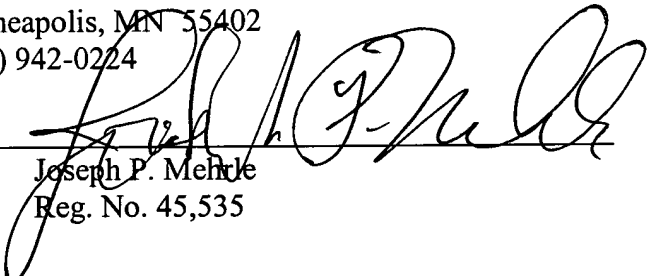
Respectfully submitted,

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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Mail Stop AF, Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 12 day of September, 2005.

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